

## Stool Specimen Practices in Clinical Laboratories, FoodNet sites, 1995-2000

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**Background:** Clinical laboratory practice influences pathogen isolation rates and may affect the interpretation of laboratory-based surveillance data trends. To determine laboratory practice in the Centers for Disease Control and Prevention's Foodborne Diseases Active Surveillance Network (FoodNet) sites, microbiologists at clinical laboratories which process stool specimens from FoodNet residents were surveyed in 2000 and results were compared to previous surveys conducted in 1995 and 1997. In 2000, FoodNet sites included Connecticut, Georgia, Minnesota, and Oregon and select counties in California, Colorado, Maryland, New York, and Tennessee.

**Methods:** We ascertained laboratory methods for routine testing of stool specimens for *Salmonella*, *Shigella*, *Campylobacter*, *Escherichia coli* O157:H7, *Yersinia*, and *Vibrio* species, and estimated the number of stool specimens processed per year by clinical laboratories. FoodNet conducted active surveillance in those laboratories for all culture-confirmed cases of those pathogens.

**Results:** Four hundred fifty-six laboratories processed stool specimens from FoodNet residents; the laboratories processed an estimated 440,000 stool specimens per year. The number of stools processed per 100,000 persons in all sites was 1504 (range, per site, 823 to 2675 per 100,000 persons.) These laboratories reported routinely testing for *Salmonella*, *Shigella*, and *Campylobacter*; only 63% of laboratories routinely tested for *E. coli* O157:H7, 50% for *Vibrio*, and 49% for *Yersinia*. Among all stools submitted, the mean isolation rate for *Campylobacter* was 1.2% (range: 0.8% to 1.7%), 0.9% for *Salmonella*, (range: 0.5% to 1.1%), 0.4% for *Shigella* (range: 0.2% to 0.5%), and 0.2% for *E. coli* O157:H7 (range: 0.1% to 0.4%). Among the 160 laboratories surveyed in all three years, the proportion that reported routinely testing for *E. coli* O157:H7 increased from 59% in 1995 to 68% in 2000.

**Discussion:** Variation in the identified rate of culture-confirmed illness caused by these pathogens may be explained, in part, by variation in laboratory practice; other potential factors include variation in physician practice and rates of illness in the population. Adherence to recently published IDSA/CDC guidelines for diagnosis and management of diarrheal diseases may help to balance concerns for patient management and public health surveillance in the era of managed health care.

### Suggested citation:

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